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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,920	07/17/2000	Masayuki Takahira	Q58735	8339

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2100 Pennsylvania Avenue, N.W.
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EXAMINER	
SHERALI, ISHRAT I	
ART UNIT	**PAPER NUMBER**
2621	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/617,920	TAKAHIRA, MASAYUKI	
	Examiner	Art Unit	
	Sherali Ishrat	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 30-47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18 and 30-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

Response to Amendment/Arguments

1. This action is in response to Applicant's amendment/arguments filed on 12/13/2005.

Examiner apologize for withdrawing the allowable subject matter of claims16-18 based on newly found reference of Lin (US 6,204,939).

Examiner apologizes for now raising 35 USC 101 issue after previous non-final action.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-18 and 30-47 are directed to non-statutory subject matter. Independent claims 1, 16-18, 34 and 44 recites and show steps in the body of claims image signal transformation. However claims 1, 16-18, 34 and 44 do not provide a practical application that produces a useful, tangible and concrete result. The final result achieved by the claimed invention should be useful tangible and concrete. The process claim must set forth a practical application of that 101 judicial exception to produce a real world result. Claims 2-15, 30-33 and 35-47 are dependent claims therefore they are also rejected.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 16, 18, 30, 32, 35-36 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (US 6,301,383) in view Lin et al. (6,204,939).

As to claim 16, Ito discloses a method of compressing/extending a color reproducing space, comprising'.

before the color reproducing space is compressed or extended such that the color reproducing space of a first image input/output device (printer) is transformed into the color reproducing space of a second image input/output device (monitor) having a different shape or size of the color reproducing space (Ito, Fig. 13-16, col. 2 lines 5-42): and

correcting an edge shape a color gamut of said second image input/output device (monitor) in according with an edge shape of a color gamut of said first image input/output device (printer) (Ito Fig. 13-16, col. 1 thru col. 2, Fig. 4, 6, and 10 col. 6 -col. 8).

Ito has not explicitly discloses central reproducing color space where first and second image devices overlap and a peripheral reproducing color space where first and second image device do not overlap are both compressed.

In the same field of endeavor Lin discloses central reproducing color space where first and second image devices overlap (Lin, col. 10, lines 30-67 thru col. 11 lines 1-10, Lin shows mapping in-gamut color which corresponds to compressing/extending color reproducing space where first and second device overlapping) and a peripheral reproducing color space where first and second image device do not overlap are both compressed (Lin, col. 11, lines 12-44, Lin shows mapping out of gamut color which corresponds to compressing/extending color reproducing space where first and second device do not overlap).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention to use the teaching of Lin of compressing/extending central reproducing color space where first and second image devices overlap and a peripheral reproducing color space where first and second image device do not overlap are both compressed in the system of Ito because such a process provide improve color matching between first and second device as stated by Lin in col. 1, lines 17-20.

As to claim 18, Ito discloses a method of compressing/extending a color reproducing space, comprising:

when the color reproducing space is compressed or extended such that the color reproducing space of a first image input/output device (monitor) is transformed into the color reproducing space of a second image input/output device (printer) having a different shape or size of the color reproducing space (fig. 13-16, col. 2 lines 5-42);

providing an adjusting parameter of at least one of a hue, a chroma range and a

lightness region for the purpose of adjusting the color reproducing space (col. 6 lines 1-65)., and

adjusting at least one of corresponding a hue, the chroma range and the lightness region of the color reproducing space to transform into by compression or extension fig. 6-7, col. 5 line 34-col. 7, line 29 and figs. 15-16, col. 2 lines 23-42).

Ito has not explicitly discloses central reproducing color space where first and second image devices overlap and a peripheral reproducing color space where first and second image device do not overlap are both compressed.

In the same field of endeavor Lin discloses central reproducing color space where first and second image devices overlap (Lin, col. 10, lines 30-67 thru col. 11 lines 1-10, Lin shows mapping in-gamut color which corresponds to compressing/extending color reproducing space where first and second device overlapping) and a peripheral reproducing color space where first and second image device do not overlap are both compressed (Lin, col. 11, lines 12-44, Lin shows mapping out of gamut color which corresponds to compressing/extending color reproducing space where first and second device do not overlap).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention to use the teaching of Lin of compressing/extending central reproducing color space where first and second image devices overlap and a peripheral reproducing color space where first and second image device do not overlap are both compressed in the system of Ito because such a process provide improve color matching between first and second device as stated by Lin in col. 1, lines 17-20.

As to claims 30 and 32 Ito discloses color reproducing space is compressed/extended (fig. 13-16, col. 2 lines 5-42);

As to claims 35-36, Ito discloses the edge shape of a color gamut of the second image input/output device is corrected to correct offset of primary colors in relation to the primary colors of the first image input/output device (fig. 7, col. 2 line 44-col. 3 line 36 and col. 5 line 51-col. 6 line 65).

As to claim 46, Ito discloses adjusting chroma range comprises compressing or extending chroma of a color gamut of the first input device (monitor) within the same hue plane in the uniform color space (La*b*) (figs. 15-16, col. 2 lines 5-42).

6. Claims 17, 31, and 33 are rejected under 35 U.S.C. 102(b) as being unpatentable over Hoshino (US 5,317,426) in view Lin et al. (6,204,939).

As to claim 17, Hoshino discloses a method of compressing/extending a color reproducing space Comprising.

before the color reproducing space is compressed or extended such that the color reproducing space of a first image input/output device (printer) is transformed into the color reproducing space of a second image input/output device (monitor) having a different shape or size of the color reproducing space (fig. 14); and

correcting a non-linear portion of an edge shape of a color gamut of said second image input/output device (monitor) in according with an edge shape of a color gamut of

first image input/output device (printer) (fig. 13-19, note that L*=bxr +c is linear function. col. 14, line 35-col. 15 line 61).

Hoshino has not explicitly discloses central reproducing color space where first and second image devices overlap and a peripheral reproducing color space where first and second image device do not overlap are both compressed.

In the same field of endeavor Lin discloses central reproducing color space where first and second image devices overlap (Lin, col. 10, lines 30-67 thru col. 11 lines 1-10, Lin shows mapping in-gamut color which corresponds to compressing/extending color reproducing space where first and second device overlapping) and a peripheral reproducing color space where first and second image device do not overlap are both compressed (Lin, col. 11, lines 12-44, Lin shows mapping out of gamut color which corresponds to compressing/extending color reproducing space where first and second device do not overlap).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention to use the teaching of Lin of compressing/extending central reproducing color space where first and second image devices overlap and a peripheral reproducing color space where first and second image device do not overlap are both compressed in the system of Hoshino because such a process provide improve color matching between first and second device as stated by Lin in col. 1, lines 17-20.

As to claims 31, Hoshino further discloses each color representation of a color reproducing space is compressed or extended (fig. 15 and 27, col. 14 line 35+, and col. 2).

As to claim 33, Hoshino further discloses the correction is performed on the highest chroma pint (r Inmax) so that the highest chroma point is clearly defined (fig. 14, col. 14, lines 5+).

Communication

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherali Ishrat whose telephone number is 571-272-7398. The examiner can normally be reached on 8:00 AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ishrat Sherali

March 1, 2006

ISHRAT SHERALI
PATENT EXAMINER
ARTUNIT 2621